From: Berkoff, Michael
To: Griffith, Garry T.

Cc: ZakrzewskiK@michigan.gov; Scott Hutsell; Jeff Keiser; Wood, Nicole; Saric, James; Carlson, Janet

Subject: OU2 GWWP letter

Date: Friday, August 23, 2013 12:33:38 PM
Attachments: OU2 RA WP comments 82313.pdf

## Garry,

Please see EPA's attached comment letter on the GWWP. The signed letter on letterhead will come next week.

Michael

Michael Berkoff Remedial Project Manager U.S. EPA Region 5 Superfund Division Remedial Response Section #3 Phone:(312) 353-8983 Fax:(312) 582-5160

## Via E-mail and Certified Mail

SR-6J

Garry Griffith Georgia Pacific Co. 951 County St. Milan, MI 48160

RE: Remedial Action Workplan Addendum – Groundwater Monitoring System Willow Boulevard/A-Site Landfill
Allied Paper/Portage Creek/Kalamazoo River Superfund Site Operable Unit #02
Kalamazoo, Michigan

Dear Mr. Griffith:

The United States Environmental Protection Agency (EPA) has reviewed the Remedial Action Workplan Addendum that details the installation of the groundwater monitoring system (GWWP) at the Willow Boulevard/A-Site Landfill, Operable Unit #02 of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site (OU2). By this letter, EPA disapproves this addendum to the Remedial Action workplan. EPA's comments detailing the reasons for the disapproval follow. Pusuant to the Consent Decree, please resubmit a revised GWWP within the next 30 days.

## **General Comments**

- 1. The GWWP should discuss the existing off-site Parker-Hannifin plume and the influence that plume may have on proposed monitoring well locations. The plan also needs to discuss the approach to be taken if the plume should migrate to the installed monitoring wells during the post-closure monitoring.
- 2. Sufficient detail about soil boring, drilling, and well construction methods are not included in the plan. Please provide this information in the next submittal.
- 3. EPA believes that it is necessary to install two additional water table wells just inside the sheet pile wall to monitor groundwater flow in these locations. Please add the installation of these wells to the GWWP.
- 4. EPA believes that GP should consider a deep background well for comparison to the downgradient wells, as data collected in the shallow background wells may not be indicative of conditions upgradient of the deep monitoring wells.

## **Specific Comments**

5. Section 3.2. The presence of a specified thickness of silt is not sufficient evidence to discontinue Vertical Aquifer Sampling (VAS). VAS shall continue to forty feet below ground surface.

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- 6. Section 3.2. The protocol for abandoning VAS borings and the installation of water table wells is unclear. Identify if water table wells will be installed in the VAS borehole or offset in a new borehole.
- 7. Section 3.2, last paragraph "(WTW-2, WTW-3 and WTW-5)" should read "(WTW-2, WTW-4 and WTW-5)."
- 8. Section 3.3. Bullet e) refers to Turbidity at less than or equal to 5 NTUs. The text below the bulleted list and elsewhere in the document refers to a 10 NTU limit. The Yeskis and Zavala reference includes a 10 NTU limit. Identify the criteria that will be used and ensure consistency throughout the document.
- 9. Section 3.3.1 Edit for consistency with Section 3.2; deep wells "will" be installed at WTW-1 and WTW-3.
- 10. Section 3.5 Provide background to support the selection of 1,100 cfs as the criteria for acceptable conditions for groundwater sampling.
- 11. Provide additional detail on how the decision to install deep wells at WTW-2, -4, and -5 will be determined.
- 12. Figure 3 Move the proposed locations of WTW-1, -2, -3, and -4 150' to the east (and clockwise) for optimum spatial coverage.

If you have any questions about this letter, please contact me at (312) 353-8983.

Sincerely,

Michael Berkoff Remedial Project Manager cc: J. Saric SR-6J

N. Wood-Chi C-14J

R. Frey SR-6J

J. Carlson C-14J

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